# RFP 11-001-34 Repair and Renovation of Radio Tower and Shelter

## **APPENDIX 1 – Preliminary Scope of Work**

The successful proposer will provide the following services for the Shelby County 800 foot tower and building renovation.

## **Project Management**

Coordinate with Shelby County Government any equipment downtime for the duration of the project. Liaise with the University of Memphis to turn off their radio transmitter for tower personnel safety. Work schedules will be given to a Shelby County Government representative prior to beginning different phases of the project.

#### **Tower Services**

**Summary:** Plumb and tension tower, removal of unused antennas lines and sidearms, installation of cable management system, re-dress of antenna lines, re-seal of antenna and jumper connections, replacement of rusted hardware, and repair of antenna problems. Mark and tag all transmission lines with permanent tags.

- 1. Remove twelve antenna systems and two microwave dish systems from the tower. This will include removal of transmission lines, antenna mounting hardware and securing hardware from the tower and building.
- 2. A cable management system will be installed on two legs of the tower to manage the remaining fourteen antenna systems and two microwave dish systems.
- 3. Hoisting grips will be installed at the antenna end of all remaining transmission lines to properly secure the lines to the tower. Each remaining antenna will be weatherproofed and tested.
- 4. Any antenna that is defective will be replaced by one of the antennas removed from the tower, providing there is a compatible antenna removed, to reduce costs to Shelby County Government.
- 5. A metal stamped tag will be used on both ends of the transmission line to properly mark the lines.
- 6. Rusted hardware will be removed when necessary. Cold galvanizing will be used to control rusting places on the tower.
- 7. Pictures for documentation purposes will be provided.
- 8. Any remaining materials will be removed from the site.
- 9. Provide an ice bridge to cover and secure transmission lines from the tower to the building. The existing ice bridge will remain in place.
- 10. Provide a revised tower drawing to reflect the final configuration of antennas and lines on the tower.

### **Building Work**

**Summary** – Services to include removal of lines, unused equipment, and site trash. Installation of ice bridge, entry port, polyphasers, and 1/2" jumpers to equipment. Liaise between the tower crew and Shelby County for downtime arrangements.

- 1. Remove from the site and deliver to a Shelby County Government location any radio equipment in the building that is no longer in service
- 2. Approximately twenty two radio equipment boxes or racks are no longer in service. Any hardware or transmission line associated with this equipment will be removed from the site. Approximately six antenna duplexers or combiners are no longer in service. The removal of these devices is at the discretion of Shelby County Government.
- 3. Use an existing rack to relocate the Corp of Engineers radio equipment. This equipment is sitting on top of radio boxes that will be removed from the site.
- 4. A new transmission line entry port will be installed adjacent to the existing port. All transmission lines, with the exception of the microwave elliptical lines, will terminate at the entry port. Surge suppression will be installed at the entry port. Ground kits and a new ground bus bar will be installed under the entry port on the outside of the building.
- 5. New 0.5" LDF jumper cables will be installed from the surge suppressors to the terminating equipment.
- 6. Provide a revised building drawing to reflect the final configuration of equipment remaining in the building.
- 7. Any remaining materials will be removed from the site.

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Materials to include: Cable management systems, replacement of rusting hardware, bus bar, ground kits, polyphaser suppression, new jumpers to equipment, entry port, ice bridge and kellums.